Robotic Weather Watcher

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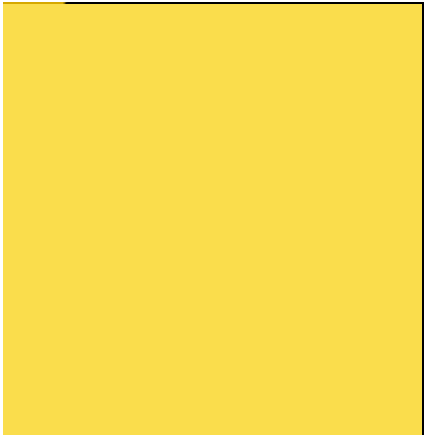

Robotic Weather Watcher

The Altair unmanned aerial vehicle (UAV), which was demonstrated last week in Palmdale, Calif., will gather information for the National Oceanic and Atmospheric Administration (NOAA) in critical areas like weather, water and ecosystem monitoring.

Developed with NASA and General Atomics Aeronautical Systems, the UAV has an 86-foot wingspan and can fly at 52,000 feet for more than 30 hours. Real-time imagery is fed to the UAV's ground command center from which the aircraft is piloted.

The plane has an internal 660-pound payload of scientific equipment, which includes an ocean color sensor to forecast algal blooms, a gas chromatograph to measure greenhouse gases, and a passive microwave vertical sounder to spot the advent of flash floods.

Among possible UAV missions are mapping in remote areas, such as the Northwest Hawaiian Islands and Alaska, and environmental forecasting in high-risk areas, like the mudslide regions of California.

"UAVs have the potential to allow us to see weather before it happens,

detect toxins before we breathe them, and discover harmful and costly algal blooms before the fish do—and there is an urgency to more effectively address these issues," said Conrad Lautenbacher, undersecretary of commerce for oceans and atmosphere and NOAA administrator.

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Credit: NOAA